

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Note: Instructions to DNRC staff for preparing this EA can be found at:
http://www.dnrc.state.mt.us/eis_ea.html

Part I. Proposed Action Description

1. *Applicant/Contact name and address:* Thomas & Carol Tibbles
PO Box 866
Polson, MT 59860
2. *Type of action:* Application for Beneficial Water Use Permit No. 76M 30024701
3. *Water source name:* Quartz Creek, Tributary to the Clark Fork River
4. *Location affected by project:* SE1/4 Section 36, T15N R26W, Mineral County
SW1/4 Section 31, T15N R26W, Mineral County
5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*

Thomas and Carol Tibbles submitted an Application For Beneficial Water Use Permit to DNRC seeking approval from the State of Montana to divert 1.5 cfs (673.20 gpm) up to 1082 acre-feet per year for power generation from Quartz Creek. The applicant proposes to divert water from the creek using a headgate, and conveying it 2000 feet via an 8 inch pipeline to a power generating turbine. Upon leaving the turbine the water will be returned back to Quartz Creek through a small ditch. The proposed water use will be largely non-consumptive. This proposed use of surface water will provide the benefit of a reliable source of electricity to the applicants. If the applicant meets the criteria for issuance of a permit, found in MCA 85-2-311, the State of Montana will grant a provisional water right permit for the above stated amount and purposes.

6. *Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)*

Montana Historical Society	Cultural Resource File Search
Montana Natural Heritage Program	Species of Concern
Montana Department of Fish, Wildlife and Parks	2005 Dewatered Stream List
Montana Department of Environmental Quality	303(d) list of impaired streams

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Quartz Creek is listed on the Department of Fish, Wildlife and Parks (FWP) 2005 impaired stream list as chronically dewatered. According FWP, the dewatering occurs in the last mile of stream, to the confluence with the Clark Fork River. This reach of stream is several miles downstream from the applicant's proposed diversion and return points. Since the use is non-consumptive, and the water will be returned to Quartz Creek upstream of the dewatered reach there should be no worsening of the dewatered condition in the last mile of Quartz Creek.

Determination: No impact.

Water quality - *Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Quartz Creek is not listed on the 2006 DEQ 303(d) list of water quality impaired streams. The proposed project should not affect water quality as the use is non-consumptive and the entire diverted flow will be returned back to the stream.

Determination: No impact.

Groundwater - *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: N/A

DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

The applicant proposes to use a headgate to divert water into an 8 inch pipeline that would convey water 2000 feet down gradient to the power generating turbine. The construction of the headgate will require permitting from the county conservation district, and the applicant has indicated that a 310 permit will be obtained prior to commencing any construction. The applicant will screen the diversion intake preventing fish entrapment. There will be some disturbance to riparian areas during construction of the headgate, however reseeding will be required as a condition of 310 permit approval. Once the headgate is constructed riparian vegetation will be allowed to re-establish. The proposed project does not require construction of any dams or other structures in the channel that may create barriers to fish migration. However,

during the lowest flow months of late summer and fall there may be a flow modification from the applicant's diversion. The applicant measured a low flow of 2.38 cfs in Quartz Creek on September 20, 2006. A diversion of 1.5 cfs during these low flow events will reduce the water flowing in Quartz Creek by one half. However, this flow modification will be limited to the 2000 feet of channel between the diversion and the return points. The project does not involve groundwater, and will not affect well construction in the area.

Determination: No significant impact.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."

The Montana Natural Heritage Program was contacted to determine if there are any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern", that could be impacted by the proposed project.

The following sensitive plant and animal species occur within Township 15 North, Range 25 West;

Westslope Cutthroat Trout, Canada Lynx and Clustered Lady's-slipper.

These animal species are found within the same Township and Range as the proposed project, but exact locations of occurrence are not known.

The non-consumptive nature of the water use will limit potential for impact to Westslope Cutthroat Trout. Construction for the headgate will occur for a very limited amount of time, and no physical barriers such as dams are required. During very low flow periods it is possible that the diversion of 1.5 cfs from Quartz Creek over a distance of 2000 feet may create a barrier to fish migration in that stream reach.

The project should not affect Lynx because the project location is not within preferred habitat types. Lynx prefer mature and/or dense stands of Lodgepole Pine, Douglas Fir, Englemann Spruce and Subalpine Fir forests with well-developed understories.

Clustered Lady's slipper and other plant species may be impacted if they are present in areas where construction will occur. The map provided by the Natural Heritage Program shows the documented occurrence of this plant south of the applicant's property at a higher elevation.

Determination: No significant impact.

Wetlands - Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.

Determination: No impact. The project does not involve any wetlands.

Ponds - For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.

Determination: No impact. The project does not involve any ponds.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.

The proposed project will not cause degradation of soil quality, alteration of soil stability or change in moisture content. No water will be applied to soils, and all diverted water will be conveyed via a pipeline.

Determination: No impact.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.

There may be some impact to existing vegetative cover during construction of the headgate and installation of the buried pipeline. Soil disturbance during construction creates a favorable environment for the spread of noxious weeds such as spotted knapweed. However, the project lies entirely on private property, and the prevention of noxious weed establishment is the responsibility of the landowner.

Determination: No significant impact.

AIR QUALITY - Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.

No source of increased air pollutants was identified. There will be a short-term increase in dust and noise during the construction phase of this subdivision development. Once construction is complete the source of dust and noise will abate.

Determination: No significant impact.

HISTORICAL AND ARCHEOLOGICAL SITES - Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.

The Montana Historical Society indicates that the Cedar-Quartz historic mining district is located within Section 36, T15N, R26W and Section 31, T15N, R25W, Mineral County. The Montana Historical Society feels that this project has the potential to impact cultural properties, and recommend that a cultural resource inventory be conducted in order to determine whether or not

sites exist and if they will be impacted. Since this project is located entirely on private property, DNRC cannot make the applicant conduct a cultural resource inventory.

Determination: No significant impact.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: None identified.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: No impact. There are no locally adopted environmental plans or goals.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: No impact. The project lies entirely on private property.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: No impacts to human health identified.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*

Yes___ No **XX** *If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: No impact.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

- (a) Cultural uniqueness and diversity? No impact.
- (b) Local and state tax base and tax revenues? No impact.
- (c) Existing land uses? No impact.
- (d) Quantity and distribution of employment? No impact.

- (e) Distribution and density of population and housing? No impact.
- (f) Demands for government services? No impact.
- (g) Industrial and commercial activity? No impact.
- (h) Utilities? No impact.
- (i) Transportation? No impact.
- (j) Safety? No impact.
- (k) Other appropriate social and economic circumstances? None identified.

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts None identified.

Cumulative Impacts None identified.

3. *Describe any mitigation/stipulation measures:* None identified.

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:* No alternatives identified.

5.

PART III. Conclusion

1. *Preferred Alternative* N/A

2. *Comments and Responses* N/A

3. *Finding:*

Yes___ No **XX** Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: AN EA IS THE APPROPRIATE LEVEL OF ANALYSIS FOR THE PROPOSED ACTION BECAUSE NO SIGNIFICANT IMPACTS WERE IDENTIFIED.

Name of person(s) responsible for preparation of EA:

Name: Jim Nave

Title: Water Resource Specialist

Date: 12/15/2006